

**THE TASK FORCE
ON THE FUTURE OF AMERICAN INNOVATION**

Innovation is America's Heartbeat

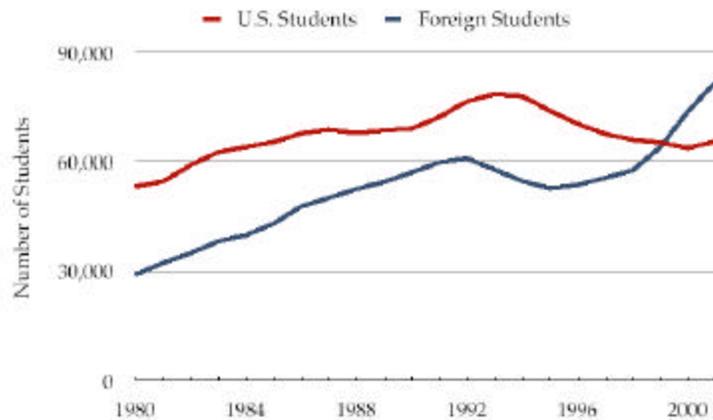
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**THE KNOWLEDGE ECONOMY:
IS THE UNITED STATES LOSING ITS COMPETITIVE EDGE?**

Benchmarks of our Innovation Future

February 16, 2005

**U.S. GRADUATE INSTITUTIONS: FOREIGN STUDENTS
OUTNUMBER U.S. STUDENTS**

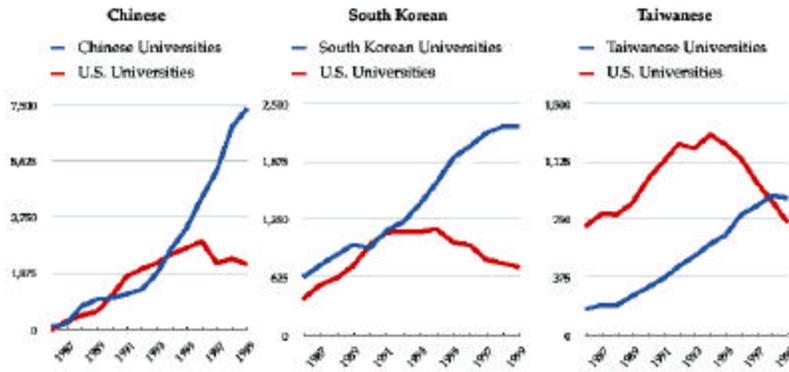


Source: National Science Foundation, *Graduate Students and Postdoctorates in Science and Engineering*, Fall 2001, Tables 8-9.
Compiled by the AFS Office of Public Affairs.

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ASIAN PH.D. STUDENTS ARE STAYING AT HOME

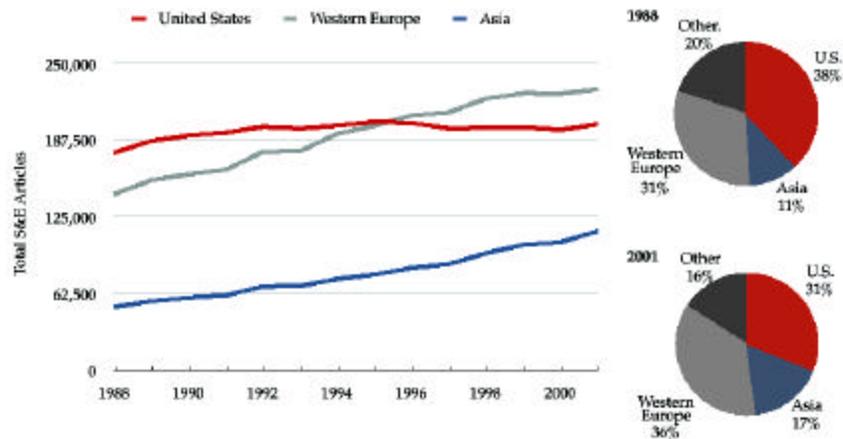
(1986 - 1999)



Source: National Science Foundation, *Science and Engineering Indicators 2000*, Appendix Table 2-41.
Adapted from Diana Hicks, "Asian countries strengthen their research," *Issues in Science and Technology*, Summer 2004.
Compiled by the APS Office of Public Affairs.

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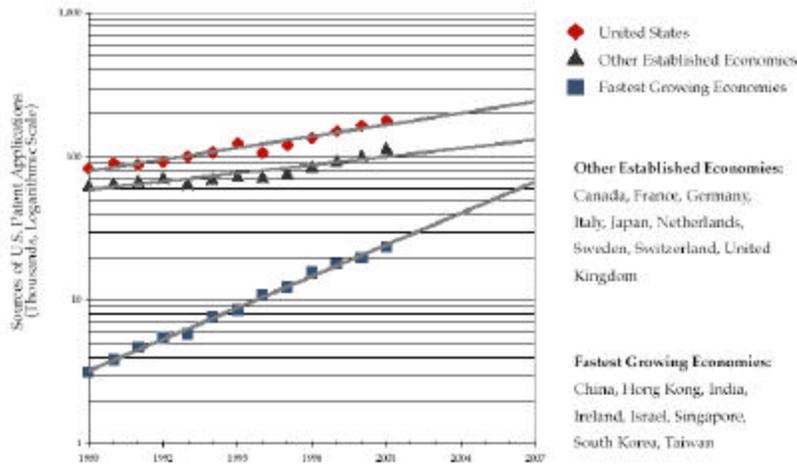
S&E ARTICLES: U.S. ALREADY PASSED BY WESTERN EUROPE, ASIA RAPIDLY CLOSING



Source: National Science Foundation, *Science and Engineering Indicators 2004*, Appendix Table S-35.
Compiled by the APS Office of Public Affairs.

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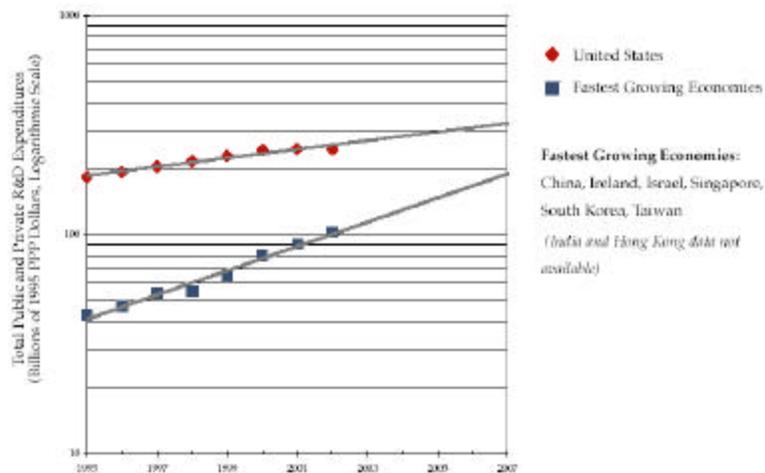
U.S. PATENT APPLICATIONS: FASTEST GROWING ECONOMIES GAINING ON U.S. RAPIDLY



Source: National Science Foundation, *Science and Engineering Indicators* 2004, Appendix Table 6-11.
Compiled by the APS Office of Public Affairs

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TOTAL R&D INVESTMENTS: FASTEST GROWING ECONOMIES GAINING RAPIDLY ON U.S.

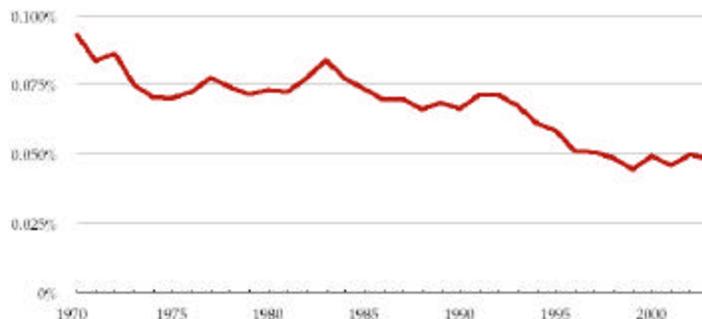


Source: Organisation for Economic Cooperation and Development, *Main Science and Technology Indicators*, May 2003.
Compiled by the APS Office of Public Affairs

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FEDERAL INVESTMENT IN PHYSICAL SCIENCES IN SIGNIFICANT DECLINE

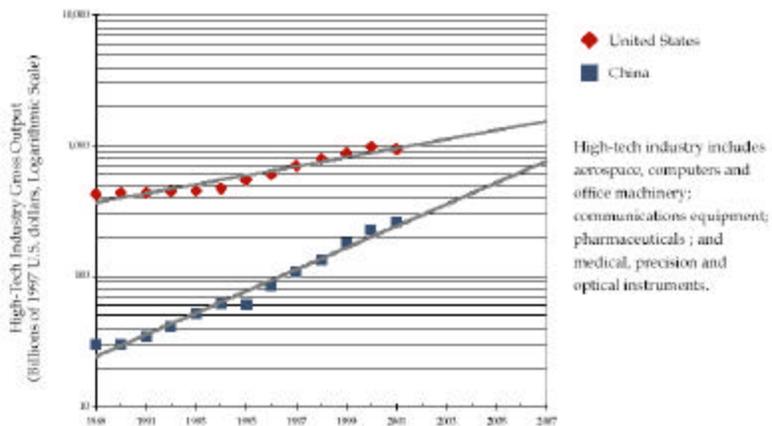
Ratio of U.S. Federal Government Funding for Physical Sciences Research to U.S. Gross Domestic Product: 1970-2003



Source: American Association for the Advancement of Science, www.aas.org/spp/rd/guidisc.htm
Compiled by the APS Office of Public Affairs

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HIGH-TECH INDUSTRY OUTPUT: CHINA RAPIDLY GAINING ON U.S.



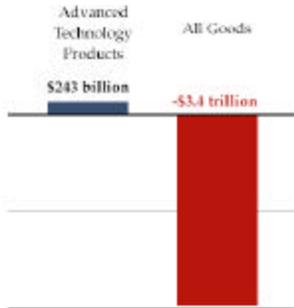
High-tech industry includes aerospace, computers and office machinery; communications equipment; pharmaceuticals; and medical, precision and optical instruments.

Source: National Science Foundation, *Science and Engineering Indicators 2004*, Appendix Table 6-1.
Compiled by the APS Office of Public Affairs

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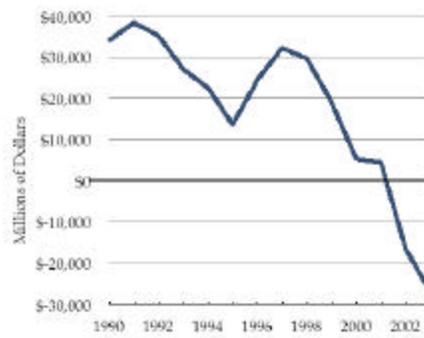
HIGH-TECH HAS DELIVERED FOR THE U.S. ECONOMY ...

Cumulative U.S. Trade Balance, 1990-2003



...BUT WILL IT CONTINUE?

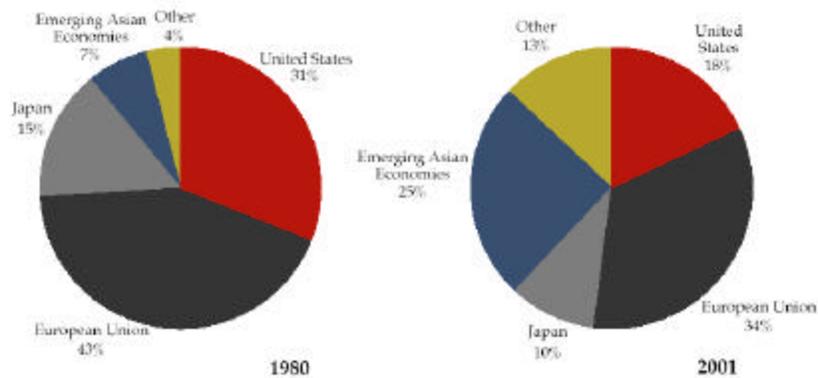
U.S. Trade Balance for High-Tech Products, 1990-2003



Source: U.S. Census Bureau Foreign Trade Statistics, *U.S. International Trade in Goods and Services*.
Compiled by the APS Office of Public Affairs.

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HIGH-TECH INDUSTRY EXPORTS: U.S. LOSING WORLD SHARE



Emerging Asian Economies: China, South Korea, Taiwan, Singapore, Hong Kong, India

Source: National Science Foundation, *Science and Engineering Indicators 2004*, Appendix Table 6-1
Compiled by the Association of American Universities

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